

NOTES ON THE NARROW-BILLED BRONZE CUCKOO.

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THE Narrow-billed Bronze Cuckoo, *Chalcites basalis*, Horsf., is found throughout Australia, including Tasmania.

The arrival of this bird in southern parts is concurrent with the tide of the other cuckoos, its laying season commencing about the end of September and continuing into December. There is a noteworthy fact in connection with the two common Bronze Cuckoos frequenting the southern parts of Australia. The one that lays the olive or bronze-coloured egg invariably, or with few exceptions, deposits its burden in dome-shaped or covered nests, while the Narrow-billed (the species now under notice) chooses either dome-shaped or open cup-shaped nests as receptacles for its red-speckled egg.

As far as my data go, the following species are among the foster birds of the Narrow-billed Bronze Cuckoo :—

VERNACULAR NAME.	SCIENTIFIC NAME.	BY WHOM FIRST RECORDED OR REPORTED.
White-shafted Fantail ...	Rhipidura albiscapa ...	G. E. Shepherd
Blue Wren ...	Malurus cyaneus ...	E. P. Ramsay
Long-tailed Wren ...	M. gouldi ...	—
Orange-backed Wren ...	M. melanocephalus ...	H. Barnard
Black-backed „ ...	M. melanotus ...	A. J. North
White-winged „ ...	M. leucopterus ...	A. J. C.
Yellow-rumped Tit ...	Geobasileus chrysorrhoa ...	„
Buff-rumped „ ...	G. reguloides ...	E. P. Ramsay
Tasmanian „ ...	Acanthiza diemenensis ...	—
Striated „ ...	A. lineata ...	A. J. North
Little Yellow „ ...	A. nana ...	E. P. Ramsay
Little Brown „ ...	A. pusilla ...	„
Scarlet-breasted Robin ...	Petroeca leggii ...	A. J. North
Red-capped „ ...	P. goodenovii ...	A. J. C.
White-fronted Scrub-Tit	Sericornis frontalis ...	A. J. C. (Kent Group)
Yellow-throated „ ...	S. citreogularis ...	Hermann Lau
Large billed „ ...	S. magnirostris ...	„
Short-billed Tree-Tit ...	Smicronis brevirostris ...	A. J. North
Rufous-headed Grass-		
Warbler ...	Cisticola ruficeps ...	G. A. Keartland
White-fronted Bush-Chat	Ephthianura albifrons ...	J. T. Gillespie
Field Lark ...	Calamanthus campestris (?)	C. French, jun., and party
New Holland Honey-eater	Meliornis novæ-hollandiæ	A. J. North
White-checked „ ...	M. sericea ...	E. P. Ramsay
White-eye ...	Zosterops cœrulescens ...	A. J. North
Red-browed Finch ...	Ægintha temporalis ...	E. Cornwall
Orange-winged Sitella ...	S. chrysoptera ...	G. E. Shepherd

It is unusual to find two species of cuckoo in the same foster bird's nest. Once I found a nest of the Tit, *Geobasileus chrysorrhæa*, containing three eggs, besides an egg each of the two Bronze Cuckoos. If these two lively youngsters had been hatched, I suppose it would have been a case of "the survival of the fittest." However, Dr. Ramsay can go one better. In 1856, from a nest of the Little Tit, *Acanthiza nana*, he took no less than six eggs—three belonging to the Tit and three to the Bronze Cuckoos—two of *C. plagosus* and one of *C. basalis*.

As we saw in our observations on the Fantailed Cuckoo, Mr. A. S. Brent can go one higher still as far as cuckoos' eggs are concerned, for in a little Tasmanian Tit's (*Acanthiza*) nest, he took the eggs of no less than three species—namely, the Fantailed, Bronze, and Narrow-billed Bronze Cuckoos.

Exceptions always seem to prove the rule. Cuckoos, being insectivorous, usually deposit their eggs in the nest of a bird used to similar diet. But here we have a partly graminivorous bird a would-be foster parent. Mr. Ed. Cornwall related to me how he once found a Finch's nest containing the fresh egg of the Narrow-billed Cuckoo. But the strange part of the affair was that the nest also contained the body of the finch, which apparently had been dead some weeks.

To the Messrs. Brittlebank I am indebted for first-hand information relating to many of the foster parents of various cuckoos. I was present with them at one of our enjoyable outings at the Werribee Gorge, 11th October, 1890, when we found the egg of a Narrow-billed Cuckoo in the nest of the New Holland Honey-eater.

During the visit of the expedition of the Field Naturalists' Club of Victoria, November, 1890, to the Kent Group, we discovered for the first time the egg of the Narrow-billed Cuckoo in the nest of the White-fronted Scrub-Tit, *Sericornis frontalis*.*

As in the case of the other Bronze Cuckoo, two eggs of the Narrow-billed are occasionally taken in one nest. Here is a curious note from Mr. G. E. Shepherd. At Somerville, 1896, twice he took a Blue Wren's nest containing a clutch of two eggs, together with a Narrow-billed Bronze Cuckoo's egg, and on examination a second cuckoo's egg was found embedded in the grassy material of the nest.

That cuckoos sometimes deposit their eggs in the foster-bird's nest before its construction is complete is again illustrated by the fact that after removing a pretty clutch of eggs from a Blue Wren's nest I discovered between the grassy folds of the nest the well-known red-sprinkled egg of the Narrow-billed Bronze Cuckoo.

* *S. gularis*, Legge, *Victorian Naturalist*, 1896.

Bearing on this point, I possess further evidence from Mr. Wm. P. Best, Branxholme, who wrote some time ago:—"I am of opinion that occasionally the Broad-billed Bronze Cuckoo deposits its egg in the *Acanthiza*'s nest before that bird has laid its eggs, and that when this happens the *Acanthiza* covers the strange egg with a thick layer of feathers. I have found several cuckoos' eggs thus covered with a dense layer of feathers in every instance; the lining of the nest has been much in excess of what is usually found. It also seems to me that the cuckoo's egg hatches in somewhat less time than the other eggs in the nest. I have been unable to verify this, however. What I have noticed is that in nests where a cuckoo's egg is found that egg is always in a more forward state of incubation than the others, and where I have found a young Cuckoo there have (or nearly) always been eggs broken (not young birds) under the nest."

It will be observed that the eggs of the two little Bronze Cuckoos, *C. plagosus* and *C. basalis*, are totally dissimilar in colouring, notwithstanding that the respective reputed parents are almost exactly alike, both in colour and size. Both wear coats of glorious golden-green. However, the Narrow-billed may be distinguished, as its name implies, by its slightly smaller and narrower bill, more mottled plumage on the throat and chest—not so barred as in the other variety—and by several (6) of the tail feathers being rufous or chestnut-coloured at their base. The young of both species on leaving the nest are hardly to be separated from each other, but at about three months old they possess the same characteristic markings as their parents. It would be of great interest if some of our oologists could explain the apparent anomaly in the colouration of the eggs, for experience teaches us that in nearly every genus the true typical egg of each species is not without characteristic resemblance.

With reference to the supposed ousting by the young cuckoo of its foster brethren, I do not think it applies in all cases, if at all, because if we consider, say, the Pallid and Fantailed Cuckoos, their rapid growth in size, compared with the smaller foster family, the latter would be soon crushed or starved out of existence; moreover, the nest could not contain them all. In any case there appears an all-wise provision in the plans of their Creator for the maintenance of their (the cuckoo) species, for it may be readily understood that it occupies the whole time of a pair of tiny foster parents to satiate the rapacious maw of their large foster chick, without being encumbered with a brood of their own offspring.